

Your task is either to design and carry out an experiment centered on Classical or Operant Conditioning OR write an analysis of two individuals who use conditioning principles in their work.

OPTION 1 – THE EXPERIMENT

Design an experiment in which a subject or a number of subjects must perform, react, respond, or learn a task. Determine the extent to which you achieve success in the learning process by applying concepts of either classical or operant conditioning.

Classical Conditioning Experiment: If you do a classical conditioning experiment, you will need to consider associating an automatic or biological reflex or response that can be associated with an unrelated, neutral stimulus (think about Pavlov, the bell – neutral, salivation – automatic response). If you can create the same reflex or response given just the neutral stimulus, then you have successfully demonstrated ACQUISITION of the learning. You might want to look at the strength of the learning by not presenting the original, unconditioned stimulus (Pavlov's dogs – meat) and see how quickly EXTINCTION takes place. Reflexes and response could be eye blinks, flinching, fear, emotional response ,etc.

Operant Conditioning Experiment: If you do an operant conditioning experiment, you will need to determine or create a task or behavior to learn or acquire OR a task or behavior to try to extinguish or end by using a system of reward(s) and/or punishments. Remember, you can use a schedule of reinforcement that is based on time or on the number of responses that are desired... AND your reinforcement can be fixed or variable.

The Write-up – similar to a lab report

1. Briefly introduce your experiment idea. Include a hypothesis on how your subjects will perform.
2. Give a detailed description of the setting, the variables that will be measured, the environment of the learning tasks or experiment, materials used/needed, the time elapsed, etc.
3. Description of the subject(s) – animal description, demographics: age range, gender, etc.
4. Describe a few examples of how subject(s) responded to the experiment
5. Describe the experiment using the equations and language used for classical or operant conditioning. (Classical: UCS, UCR, CS, NS... Operant: defined behavior, positive/negative reinforcer – reward/punishment, schedule of reinforcement: fixed/variable ratio/interval)
6. Include charts, tables, and/or graphs that illustrate the learning, the reinforcement schedule, etc.

7. Conclude with commentary on your successes, setbacks, problems, highlights, etc. In what ways was your hypothesis correct? If not, what happened? Any surprises? What would you do differently if given the chance?

NOTE: You do not have to actually “succeed” in your conditioning experiment. Whatever the outcome you can still perform the tasks above and write-up the experience as described. Your final reflection should discuss what level of success you achieved and what you would do differently next time.

OPTION 2 – OBSERVATIONAL STUDY

Carefully observe, record, and reflect on the conditioning attempts, habits, and practices of at least two individuals you have access to. You may want to observe teachers, parents, coaches, instructors, siblings, friends, coworkers, etc. Your task is to determine if there are specific techniques that they use that could be described as classical or operant conditioning. Once you have identified a process or technique that they use you will need to write an analytical report about the attempts, techniques, and “successes” of these individuals.

The Write-up

1. Briefly introduce your two individuals [two is minimum]. Who they are, what is their role or function (job), who are they working with (training/conditioning), etc.?
2. Give a detailed description of the setting, the variables that will be measured, the environment of the learning tasks or experiment, materials used/needed, the time elapsed, etc.
3. Description of the subject(s) – animal description, demographics: age range, gender, etc.
4. With each individual – describe the conditioning using the proper terms associated with each major type of conditioning (Classical: UCS, UCR, CS, NS... Operant: defined behavior, positive/negative reinforcer – reward/punishment, schedule of reinforcement: fixed/variable ratio/interval)
5. For each trainer conclude with commentary on the level of success they experience (based on your observation – perhaps guess) in their work with their respective subject(s). Consider interviewing the trainer and/or subject(s) and include their own reflections on the techniques used to condition.

NOTE: If you are working with a partner you must include a level of complexity to your experiment or observational study that warrants or merits the addition of a partner. You may want to consider broadening your experiment, including more subjects, etc. For observational studies you should broaden your study to include more individuals to observe and include additional analysis of the observation. In other words, two individuals can produce a more complex study or experiment than one and your final submission of the paper should reflect this cooperative approach to the task.